

CLAIMS

1. A method for generating a composite video sequence from a plurality of given video sequences, comprising:

- 5 (a) synchronizing the given sequences; and
(b) forming the composite sequence from the synchronized sequences as projected into a chosen focal plane.

2. The method according to claim 1, wherein synchronizing is with respect to a timed event in the given sequences.

10 3. The method according to claim 1, wherein synchronizing is with respect to a common spatial event in the given sequences.

4. The method according to claim 1, wherein synchronizing is with respect to two events in each of the given sequences, with time scaling for equalizing time between the events.

15 5. The method according to claim 1, wherein the given video sequences have camera parameters including camera location and focal length, wherein the chosen focal plane corresponds to focal plane of the one of the given sequences, and wherein the composite sequence is as viewed from the camera location of the one of the given sequences.

20 6. The method according to claim 1, wherein forming the composite sequence is on a frame-by-frame basis.

7. The method according to claim 1, wherein forming the composite sequence is based on several frames of at least one of the sequences, for an expanded field of view in the composite sequence as compared with the one of the sequences.

8. The method according to claim 1, wherein the given video sequences are from a sports event.

9. The method according to claim 8, wherein the sports event is a ski race.

10. The method according to claim 8, wherein the sports event is a car race.

5 11. A system for generating a composite video sequence from a plurality of given video sequences, comprising:

(a) means for synchronizing the given sequences and

(b) means for forming the composite sequence from the synchronized sequences as projected into a chosen focal plane.

10 12. The system according to claim 11, wherein the means for synchronizing comprises means for aligning the given sequences with respect to a timed event in the given sequences.

15 13. The system according to claim 11, wherein the means for synchronizing comprises means for aligning the given sequences with respect to a common spatial event in the given sequences.

14. The system according to claim 11, wherein the means for synchronizing comprises means for aligning the given sequences with respect to two events in each of the given sequences, and means for time scaling for equalizing time between the events.

20 15. The system according to claim 11, wherein the given video sequences have camera parameters including camera location and focal length, and wherein the means for forming the composite sequence comprises means for choosing the focal plane corresponding to focal plane of the one of the given sequences, and means for forming the composite sequence as viewed from the camera location of the one of the

given sequences.

16. The system according to claim 11, wherein the means for forming the composite sequence comprises means for processing the given sequences on a frame-by-frame basis.

5 17. The system according to claim 11, wherein the means for forming the composite sequence comprises means for using several frames of at least one of the sequences, for an expanded field of view in the composite sequence as compared with the one of the sequences.

10 18. The system according to claim 11, wherein the given video sequences are from a sports event.

19. The system according to claim 18, wherein the sports event is a ski race.

20. The system according to claim 18, wherein the sports event is a car race.

21. A system for generating a composite video sequence from a plurality of given video sequences, comprising:

15 (a) means for synchronizing the given sequences and
(b) a processor which is instructed for forming the composite sequence from the synchronized sequences as projected into a chosen focal plane.

22. A method for generating a composite image, comprising:

20 (a) synchronizing a plurality of video sequences and
(b) forming the composite image from corresponding frames of the synchronized sequences as projected into a chosen focal plane.

23. A broadcast service comprising:

(a) synchronizing a plurality of video sequences;

- (b) forming a composite sequence from the synchronized sequences as projected into a chosen focal plane; and
- (c) broadcasting the composite sequence.

24. A method for generating a composite video sequence from a given video
5 sequence and a given audio sequence, comprising:

- (a) synchronizing the given video sequence and the given audio sequence for synchrony between visual features of the video sequence and audio features of the audio sequence; and

- (b) forming the composite sequence from the synchronized sequences,
10 having a video portion corresponding to the given video sequence and an audio portion corresponding to the given audio sequence.

25. A system for generating a composite video sequence from a given video sequence and a given audio sequence, comprising:

- (a) means for synchronizing the given video sequence and the given
15 audio sequence for synchrony between visual features of the video sequence and audio features of the audio sequence; and

- (b) means for forming the composite sequence from the synchronized sequences, having a video portion corresponding to the given video sequence and an audio portion corresponding to the given audio sequence.

20 26. A system for generating a composite video sequence from a given video sequence and a given audio sequence, comprising:

- (a) means for synchronizing the given video sequence and the given audio sequence for synchrony between visual features of the video sequence and audio features of the audio sequence; and

- (b) a processor which is instructed for forming the composite sequence
25 from the synchronized sequences, having a video portion corresponding to the given video sequence and an audio portion corresponding to the given audio sequence.

27. A method for determining differential time between two contestants at a specified location in a race, comprising:

forming a composite video sequence from synchronized given video sequences of the contestants, projected into a chosen focal plane; and

5 counting the number of frames between the contestants passing the location.

28. The method according to claim 1, wherein the given video sequences have biomedical significance.

29. The method according to claim 28, wherein biomedical significance
10 comprises significance as to movement of a limb of a patient.

30. The method according to claim 1, wherein the given video sequences comprise car crash test sequences.

31. The method according to claim 30, wherein the car crash test sequences comprise images of cars being tested.

15 32. The method according to claim 30, wherein the car crash test sequences comprise images of crash dummies in cars being tested.

A & A. >